



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CF6-80C2B4	BYPASS RATIO:	5.1
UNIQUE ID NUMBER:	2GE043	PRESSURE RATIO ( $\pi_{00}$ ):	30.1
COMBUSTOR:	1862M39		
ENGINE TYPE:	TF	RATED THRUST ( $F_{00}$ ) (kN):	254.4

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	2.7	29.3	48.5	8.1
AS % OF ORIGINAL LIMIT	13.9	24.8	48.4	44.2
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			60.5	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			72.1	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			81.9	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			96.2	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 - DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.409	0.05	0.05	25.93	6.9
CLIMB OUT	85	2.2	1.965	0.05	0.04	20.17	4.5
APPROACH	30	4.0	0.641	0.12	2.12	12.37	0.0
IDLE	7	26.0	0.201	1.59	19.76	4.68	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			828	535	6538	11226	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				2.1	25.7	44.1	6.9
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.2	1.2	0.3	0.6
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.96-2.48	24.6-27.4	43.7-44.4	6.2-7.7

### ACCESSORY LOADS

POWER EXTRACTION	0	(kW)	AT	-	POWER SETTINGS
STAGE BLEED	0	(% CORE FLOW)	AT	-	POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.6-98.2
TEMPERATURE (K)	279-293
ABS HUMIDITY (kg/kg)	0.00457-0.00743

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: CF6 Eval Engineering  
 TEST LOCATION: Site IIIB, PTO Peebles  
 TEST DATES: 13/01/1995-17/01/1995

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

### REMARKS

1. Ref GE report TM95-17.
2. Engine S/N 704/233 & 704/234
3. 1862M39 combustor
4. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
5. NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 e)

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)